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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BIRCH, STEWART, KOLASCH & BIRCH, LLP
P. O. Box 747
Falls Church, VA 22040-0747

EXAMINER	
AGGARWAL, YOGESH K	

ART UNIT	PAPER NUMBER
2615	5

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/678,333	WATANABE, MIKIO	
	Examiner	Art Unit	
	Yogesh K Aggarwal	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 03 October 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3,7,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al (US #6,493,027) in view of Hull et al. (US Patent # 5,806,005).

Ohta teaches the following:

An information recording device, comprising:

a recorder which can record at least either image or audio information (figure 2 shows a magnetic tape 1 which has two recording areas: video signal 5 and PCM audio signal 6);

wherein said controller causes said oscillation section to stop the generation of a carrier at least for a period from the time when said image or audio information is captured to the time when said image or audio information is recorded (Ohta, col. 6 lines 43-60 figure 5)[The reference teaches the control section stopping the zoom lens during the photographing operation so that the noise due to image shake is avoided. It is obvious to one skilled in the art to extend this teaching to an oscillator for the same reasons i.e. to avoid high-frequency noise to be recorded into the image due to the carrier].

Ohta fails to teach the following limitations. However the following limitations are well known in the art as evidenced by Hull:

(a) a wireless communication device for transmitting said information to external equipment through wireless communication (fig. 1 shows a cellular telephone transmitter 28);

(b) an oscillation section for generating a carrier for said wireless communication device (An oscillator section is inherent in the cellular telephone transmitter);

(c) and a controller for controlling the generation and stop of said carrier (CPU 22 shown in fig. 1 controls the cellular telephone transmitter 28).

Therefore taking the combined teachings of Ohta and Hull as a whole, it would have been obvious to one skilled in the art to incorporate the limitations a, b and c. Doing so is advantageous because power is saved and unnecessary heating of the imaging apparatus does not take place if the carrier is stopped during the imaging process.

[Claim 2]

The information-recording device according to claim 1, wherein said controller causes said oscillation section to start the generation of a carrier when said information has been recorded (Ohta, col. 6 lines 50-54 figure 5)[The optical system is movable again after the image is taken].

Regarding claims 3 and 7 these are method claims corresponding to apparatus claim 1 and 2 respectively. Therefore, claims 3 and 7 are analyzed and rejected as previously discussed with respect to claim 1 and 2.

[Claim 9]

An electronic camera, which transmits a captured image to external equipment through wireless communication, comprising: a communication device for stopping wireless oscillation at least during an imaging process (See claim 1 for reasons of rejection).

3. Claims 4,6,10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al (US #6,493,027) in view of Hull et al. (US Patent # 5,806,005) in further view of Yokota et al. (US Patent # 5,847,662).

[Claim 4]

Ohta and Hull fails to teach, "... wherein some information indicating that said carrier is to be stopped is transmitted to said external equipment before the generation of said carrier is stopped". However the following limitations are well known in the art as evidenced by Yokota (col. 1 lines 59-65).

Therefore taking the combined teachings of Ohta, Hull and Yokota as a whole, it would have been obvious to one skilled in the art to incorporate information indicating that said carrier is to be stopped is transmitted to said external equipment before the generation of said carrier is stopped. Doing so a radio card can continuously transmit or receive a vast amount of data at a time at a high speed without intermission as evidenced in Yokota (col. 1 lines 40-45).

[Claim 6]

The communication method of an information recording device according to claim 3, further comprising the step of receiving a synchronization signal emitted by external equipment while the generation of said carrier is stopped (Yokota, col. 2 lines 6-10).

[Claim 10]

Ohta and Hull teach the limitations of Claim 9 but fail to teach, "wherein while said wireless oscillation is stopped after the communication with desired external equipment has been established, said communication device is placed into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a

receiving section (Yokota col. 2 lines 6-10)[When the device receives the second carrier it stops transmitting the first carrier and synchronizes with the first carrier frequency].

[Claim 11]

The electronic camera according to claim 10, wherein said semi-stop state starts when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state (Ohta col. 6 lines 43-50 figure 5)[semi-stop state refers to the forcible stopping of the zoom lens while taking an image. After taking an image the camera goes into an ordinary mode].

[Claim 12]

A communication system, comprising the electronic camera according to claim 10 and external equipment which has a storage medium for storing an image received from said electronic camera,

wherein, before going into said semi-stop state, said electronic camera notifies said external equipment that it will go into said semi-stop state and after stopping said semi-stop state, it notifies said external equipment that it has been released from said semi-stop state; [This limitation is similar to claim 4 wherein some information indicating that the carrier is to be stopped is transmitted to said external equipment before the generation of the carrier is stopped] and in response to the notification of semi-stop state received from said electronic camera, said external equipment keeps the connection therewith and supplies a synchronization signal (This

limitation is similar to claim 6 wherein the when the camera on receiving a synchronization signal emitted by external equipment stops the generation of said carrier].

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al (US #6,493,027) in view of Hull et al. (US Patent # 5,806,005) in further view of Yokota et al. (US Patent # 5,847,662) in further view of Nisikawa (US Patent # 5,821,995).

[Claim 5]

Ohta, Hull and Yokota teach the limitations of claim 4 but fail to teach ".. causing any external equipment to transmit equipment identification information to another equipment for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information". However the following limitations are well known in the art as evidenced by Nisikawa (col. 15 lines 15-18)[The control circuit 14 in the camera 1 shown in figure 6 provides the control signal transmitter circuit 15 with a signal C4 for instructing the CCU 2(external equipment) to stop the transmission of the signal which are determined to be unusual (For stopping the transmission the carrier has to be stopped too)]. Therefore taking the combined teachings of Ohta, Hull, Yokota and Nisikawa as a whole, it would have been obvious to one skilled in the art to incorporate any external equipment to transmit equipment identification information to another equipment for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information. Doing so would reduce useless power consumption caused by the operation of a transmitter circuit as evidenced in Nishikawa (col. 2 lines 66-67).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al (US #6,493,027) in view of Hull et al. (US Patent # 5,806,005) in further view of Kiyokawa (US Patent # 6,204,877).

[Claim 8]

Ohta and Hull teach the limitations of claim 7 but fail to teach, "...comprising a step of automatically transmitting said recorded information to said external equipment when the generation of said carrier is started. However the following limitations are well known in the art as evidenced by Kiyokawa (col. 9 lines 40-47 figure 8).

Therefore taking the combined teachings of Ohta, Hull and Kiyokawa as a whole, it would have been obvious to one skilled in the art to incorporate a step of automatically transmitting said recorded information to said external equipment when the generation of said carrier is started. Doing so a photographing operation is performed preferentially if a trigger switch for starting the photographing operation is performed as evidenced in Kiyokawa (col. 9 lines 50-54).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Taki et al. (US Patent # 6,477,605)
- Rodgers et al. (US PG-PUB # 202/0011932)
- Kobayashi et al. (JP Patent # JP63228857).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K Aggarwal whose telephone number is (703) 305-0346. The examiner can normally be reached on M-F 9:00AM-5: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary examiner, Vu Le can be reached at (703) 308-6613. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700

YKA
November 24, 2003

VU LE
PRIMARY EXAMINER